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Appl. No. 10/500,341
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Reply to Office Action of 07/09/2007
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AMENDMENTS TO THE CLAIMS

Original claims 1-9 were canceled and new claims 10-30 were substituted in the Preliminary Amendment filed June 24, 2004.

Please amend claims 10, 19, and 25 as set forth in the following listing of the claims.

Claims 1-9 (cancelled)

10. (currently amended) A device for pressure regulation of a hydraulic pump for pumping a hydraulic medium under pressure, comprising:

delivery-quantity regulating means[[]];
comprising a piston unit ~~including with a~~ first biasing means;

a piston member[[]] moveable with reciprocating motion in a 'first direction, and being biased in said first direction ~~a first surface on said piston member to be biased~~ by a first biasing force of said hydraulic medium ~~in a first direction acting on a first surface of said piston member~~;

a second surface on said piston member being engaged by said first biasing means, said piston member

~~being to be~~ biased by a second biasing force in a second direction, opposite to said first direction;

wherein said second biasing means biases
~~to bias~~ said piston member in addition to said hydraulic medium and said first biasing means, thus influencing the pressure of said hydraulic medium.

11. (previously presented) Device as claimed in claim 10, wherein said hydraulic medium is lubricating oil, and said hydraulic pump supplies said lubricating oil to an internal combustion engine.

12. (previously presented) Device as claimed in claim 10, wherein said first biasing means comprise spring means.

13. (previously presented) Device as claimed in claim 10, wherein said second biasing means comprise magnetic coil means and armature means acting onto said piston member.

14. (previously presented) Device as claimed in claim 10, wherein said second biasing means comprise motor means for adjusting said second biasing force of said first biasing means.

15. (previously presented) Device as claimed in claim 14, wherein said motor means comprise a stepping motor.

16. (previously presented) Device as claimed in claim 10, further comprising a first path of hydraulic medium including means to provide an elevated pressure of hydraulic medium, and a second path of hydraulic medium including means to provide a lower pressure of said hydraulic medium as compared with said elevated pressure, and switch means for opening at least one of said paths.

17. (previously presented) Device as claimed in claim 16, wherein said second biasing means comprise electric means to be supplied with electric current, the device further comprising means for urging said switch means to open said first path and to provide said elevated pressure when said supply of electric current fails.

18. (previously presented) Device as claimed in claim 10, wherein said second biasing means comprise centrifugal valve means, drive means for rotating said centrifugal valve means to exert a speed-dependent influence onto the pressure of said lubricating oil.

19. (currently amended) Device as claimed in claim 18, wherein said centrifugal valve means comprise

a first path for lubricating oil to said first surface of said piston member,

at least one second path for allowing partial draining of said lubricating oil,

switching piston means movable in an at least partially radial direction for alternatively opening one of said first and second paths, and

third biasing means for biasing said switching piston means towards said first path.

20. (previously presented) Device as claimed in claim 19, wherein said third biasing means comprise spring means.

21. (previously presented) Device as claimed in claim 19, wherein said switching piston means are positioned inclined to said radial direction.

22. (previously presented) Device as claimed in claim 19, wherein said drive means comprise shaft

means and pumping gear means, said switching piston means and said third biasing means being located within said pumping gear means.

23. (previously presented) Device as claimed in claim 19, wherein said switching piston means comprises projection means extending in said at least partially radial direction, said projection means being engaged by said third biasing means.

24. (previously presented) Device as claimed in claim 10, wherein said second biasing means comprise electro-valve means.

25. (currently amended) Device as claimed in claim 10, wherein said second biasing means comprise conveying means for said hydraulic medium for conveying it into a certain direction, thus altering the pressure of said hydraulic medium.

26. (previously presented) Device as claimed in claim 25, wherein said conveying means comprise rotating shaft means and a helical groove in said shaft means.

27. (previously presented) Device as claimed in claim 10, wherein said piston member comprises further at least a third surface to be biased by said hydraulic medium in said first direction, and switching means for allowing hydraulic medium to pass to at least one of said first and said at least third surfaces.

28. (previously presented) Device as claimed in claim 10, further comprising hydraulic filter means arranged in series with said first surface of said piston member.

29. (previously presented) Device as claimed in claim 10, further comprising housing means for receiving said hydraulic medium in at least one cavity, said second biasing means comprising at least one electrical component which is mounted outside said housing means and at least one hydraulic conduit means for communication of said cavity and said electrical component.

30. (previously presented) Device as claimed in claim 10, further comprising housing means for receiving said piston member, said second biasing means comprising at least one electrical component attached to said housing means.